

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 April 2005 (21.04.2005)

PCT

(10) International Publication Number
WO 2005/036468 A1

(51) International Patent Classification⁷: G06T 11/00

(21) International Application Number:
PCT/JP2004/015570

(22) International Filing Date: 14 October 2004 (14.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003-354897 15 October 2003 (15.10.2003) JP

(71) Applicant (for all designated States except US): SONY COMPUTER ENTERTAINMENT INC. [JP/JP]; 2-6-21, Minami-Aoyama, Minato-ku, Tokyo 107-0062 (JP).

(72) Inventor; and

(75) Inventor/Applicant (for US only): OKA, Masaaki

[JP/JP]; c/o SONY COMPUTER ENTERTAINMENT INC., 2-6-21, Minami-Aoyama, Minato-ku, Tokyo 107-0062 (JP).

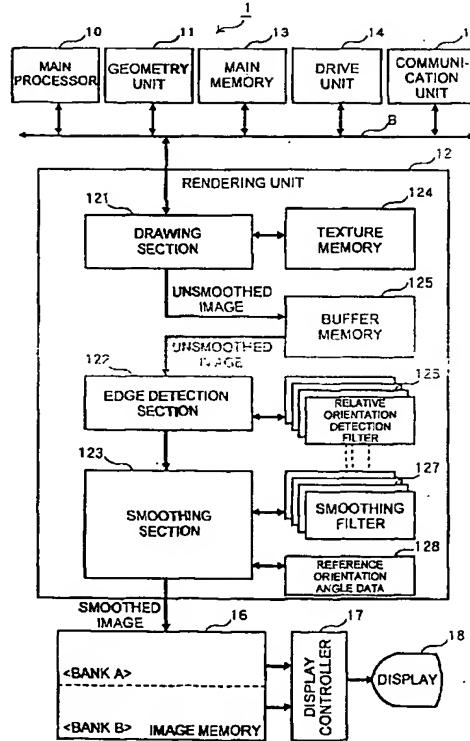
(74) Agent: SUZUKI, Seigo; Shiba NK Bldg. 4th Floor, 22-7, Shiba 3-chome, Minato-ku, Tokyo 105-0014 (JP).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

[Continued on next page]

(54) Title: IMAGE PROCESSOR AND METHOD, COMPUTER PROGRAM, AND RECORDING MEDIUM



(57) Abstract: A plurality of relative orientation detection filters having orientation coefficients that represent a relative orientation of a connected sequence of pixel drawing regions with their pixel values distributed in a predetermined pattern in a buffer memory having the same structure as an image memory, and a plurality of smoothing filters having smoothing coefficients for corresponding relative orientations, are prepared. A rendering unit draws an image to the buffer memory. A relative orientation of an edge in this image is detected by means of selecting out one relative orientation detection filter that is most suitable for the relative orientation in question. Pixel values for the edge are smoothed by using the smoothing filter according to the detected relative orientation. Then, drawing data including the smoothed pixel values are written into the image memory.

WO 2005/036468 A1

BEST AVAILABLE COPY



FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— with international search report

BEST AVAILABLE COPY